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(54) Title: PARTICULATE SUSPENSIONS

(57) Abstract: The stability of a particulate suspension comprising an aqueous phase containing substantially no miscible organic solvent having suspended therein an agrochemical solid substantially insoluble in said aqueous phase is enhanced by (i) forming a polymeric stabiliser having a hydrophilic moiety and a hydrophobic moiety by polymerising a plurality of vinylic monomers, not being exclusively vinylic esters or their hydrolysed products, at least some of which contain functional groups capable of undergoing cross-linking reactions and (ii) reacting said polymeric stabiliser with one or more substances contained (dissolved or suspended) in the aqueous phase capable of undergoing a cross-linking reaction with said functional groups, wherein the ratio by weight of (a) the polymeric stabiliser prior to cross-linking to (b) the suspended agrochemical is less than 1 part of polymeric stabiliser per 5 parts of suspended agrochemical.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A01N25/04 A01N25/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N B01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 262 152 B1 (FRYD MICHAEL ET AL) 17 July 2001 (2001-07-17) cited in the application column 1, line 10 - line 56 column 2, line 11 - column 3, line 20 column 3, line 36 - column 6, line 33; claims	1-23
A	EP 0 007 731 A (ICI PLC) 6 February 1980 (1980-02-06) page 1 - page 2, line 33 page 3, line 29 - page 6, line 19 page 8, line 20 - line 26	1-23

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6262152	B1	17-07-2001	AU	755162 B2		05-12-2002
			AU	6290199 A		26-04-2000
			CA	2341977 A1		13-04-2000
			CN	1322228 T		14-11-2001
			DE	69916094 D1		06-05-2004
			EP	1123358 A1		16-08-2001
			JP	2002526259 T		20-08-2002
			WO	0020520 A1		13-04-2000
<hr/>						
EP 0007731	A	06-02-1980	AU	4907879 A		31-01-1980
			EP	0007731 A2		06-02-1980
			GB	2026341 A		06-02-1980
			JP	55021486 A		15-02-1980
			ZA	7903626 A		30-07-1980
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